Claims

1. A reclosable plastics cap (2) having a top panel (4), a skirt (6) and a plastics coated aluminium foil element (30) fused to the cap (2) to provide a gas barrier inhibiting gas flow through the cap, such that a peripheral aluminium edge of the foil element cannot come into contact with the contents of a container closed by the cap in use.

2. A reclosable plastics cap (2) having a top panel (4) and a skirt (6), wherein a plastics coated aluminium foil liner (30) has a peripheral edge (32) that is embedded and fused into a surface (40, 70) of the cap (2).

3. A cap (2) as claimed in claim 1 or 2, wherein the foil edge (32) is embedded and fused into an internal surface (40) of the top panel (4).

4. A cap (2) as claimed in claim 1or 2, wherein the foil (30) is fused to an external surface (70) of the skirt (6) or top panel (4) of the cap (2).

5. A cap (2) as claimed in any one of the preceding claims, wherein an opening (66) is formed in the top panel (4).

6. A cap (2) as claimed in any one of the preceding claims, wherein a valve (20), adapted to fit inside and seal against an inner wall of a neck of a container to which the cap is fitted, depends from the top panel (4).

7. A cap (2) as claimed in claim 6, wherein the valve (20) is provided on a plate (62), which traps the foil liner (30) to an internal surface of the top panel (4).

8. A cap (2) as claimed in claim 7, wherein the plate (62) has an opening (68) which cooperates with a corresponding opening (66) in the top panel to enable the foil to be pierced to access the contents of a container closed by the cap in use.

9. A cap (2) as claimed in claim 6, wherein the foil edge (32) is embedded and fused into an internal surface of the valve (20).

10. A cap (2) as claimed in any one of claims 6 to 9, wherein a closed plug (92) is formed inside the cap to substantially fill a void inside the cap and to define the valve (20).

11. A cap (2) as claimed in claim 10, wherein the foil liner (30) forms or covers an internal or external end face of the plug (92).

12. A cap (2) as claimed in claim 10, wherein an interior of the plug (92) is defined by a recess (90) lined with the foil liner (30).

13. A cap (2) as claimed in claim 10 or 11, wherein an interior of the plug (92) is lined with EVOH or other similar gas barrier plastics material.

14. A reclosable plastics cap (2) having a top panel (4), a skirt (6) and a gas barrier (30) to inhibit gas flow through the cap (2), characterised in that a closed plug (92) substantially fills a void inside the cap and defines a valve (20) adapted to fit inside and seal against an inner wall of a neck of a container to which the cap is fitted.

15. A cap (2) as claimed in any one of the preceding claims, wherein the skirt (6) is threaded (10).

16. A cap (2) as claimed in any one of the preceding claims, wherein oxygen scavenger materials are used in parts of the cap touching or close to a product in a container to which the cap is fitted in use.

17. An assembly of a cap as claimed in any one of the preceding claims and a glass, plastics, steel or aluminium bottle, jar or any other container.

18. An assembly of a cap as claimed in any one of claims 1 to 16 and a container made of paperboard or composite material.

19. An assembly of a cap as claimed in any of claims 1 to 16 and a thermoformed container.

20. A plastics component (28) for use in manufacturing a cap (2) as claimed in any one of claims 1 to 13, wherein an annular wall (20,50) extends from the top panel (4) in order to define a recess (48) to receive the foil liner (30).

21. A plastics component (28) as claimed in claim 20, wherein the diameter of the foil liner is smaller than the neck of a bottle or container to which the cap is to be fitted in use.

22. A plastics component as claimed in claim 20, wherein the wall (20, 50) has an intermediate, reduced cross-section portion (56) in order to enable a lower part (54) of the wall to be folded back towards the top panel in order to retain the peripheral edge (32) of the foil liner during production.

23. A method of producing a cap (2) from a plastics component (28) comprising a top panel (4) surrounded by a skirt (6), a receiving recess (48) for a barrier foil, and a sacrificial wall (50), the method comprising the steps of placing a barrier foil (30) into the recess (48) and heating the wall (50) to melt the plastic material of the wall in order to embed an edge (32) of the foil (30) into the cap (2).

24. A method as claimed in claim 23, wherein the heating step comprises induction heating the foil (30) to melt the wall (50).

25. A method as claimed in claim 23 or 24, wherein the foil (30) is oversized and when placed into the recess (48) has its peripheral edge (32) pressed against an inner surface of the recess (48).